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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/919,670 08/28/97 AKIZUKI

H SANYO-74

EXAMINER

TM02/0326

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HARRINGTON, A
ART UNIT PAPER NUMBER

2612
DATE MAILED:

03/26/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/919,670

Applicant(s)

Akisaki et al

Examiner

HARRINGTON

Group Art Unit

2612

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 1-12-01
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-12 is/are pending in the application.
- Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-12 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
- ☐ received in Application No. (Series Code/Serial Number) _____.
- ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/12/01 have been fully considered but they are not persuasive.

Applicant agrees that Anderson et al. patent (US 5,963,255) teaches a flash is large power drainer in a camera and thus implements a power saving function of not charging the flash if the level of the battery is below a predetermined value. Therefore applicant may also agree that Anderson implicitly teaches not having a concentrated load pull on the battery as a way to prevent power failure , as does applicant invention (see page 6 of the specification). Applicant also agrees that in power state 3, image data is recorded while the flash unit charging remains off. The Examiner also contends image data playback can also occur, since Anderson discloses the charging is shutdown not the display. Thus, an user may in fact see if an image he/she thought was previously recorded has been truly recorded in the reduced power state before the battery level decreased below at which the camera could record the image (such as power state 1 and see col. 8). Therefore, the Examiner must respectfully disagree with applicant assertion that Anderson et al fails to teach this limitation as newly claimed in the amendment filed on 1/12/01, and disagree with applicants assertion that Anderson fails to solve a same problem as applicant's invention.

Applicant also asserts Kare et al. (US 5,541,656) fails to teach the new limitation. The Examiner agrees with applicant. However, Kare was intended to teach that charging and other imaging

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functions should not occur simultaneously but sequentially (one at a time) which also provided support for the not overloading a battery.

The following modification to the rejection was necessitated by amendment.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 5,963,255).

Regarding claim 1, Anderson disclose an digital camera comprising a signal processor (16) for processing an image signal output from imaging element(col. 3, lines 53-60 and col. 4, lines 1-10 and see figure 1); a LCD display for displaying image data (see figure 4, #18); an electronic flash device (#66, see figure 2) comprising a capacitor (col. 5, lines 10-28) and a discharge tube must receive the output ;battery for supplying current to all the circuitry of the camera (#17 and #74; see figure 1 and 3; col. 5, lines 29-42); a battery voltage detection circuit (#76; col. 5, lines 59-65; and the system controller (col. 2, lines 55-60; see figure 3 and 4; col. 5, lines 54-57).

Anderson's system controls the camera such that when the voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the

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system. For example: The flash charging is completely shut down in power state 3, and the camera system may still take images and thus could still display images. In another mode, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display. Thus, Anderson's camera system is clearly teaching to powering down individual circuits which have a great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the batter is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55). Anderson also clearly teaches in a power failure state (power state 1) that shutting down image recording and displays to complete the processing of image data. Specifically, Anderson details that in powers states three and four (see col. 7, lines 29-35), the flash unit is the first to see power cuts, but other segments of the camera may operate. Thus, Anderson's camera implicitly would include recording and displaying before charging a flash could occurs. As discussed above, image data is recorded while the flash unit charging remains off in power state 3. The Examiner also contends image data playback could occur upon user selection, since Anderson discloses the charging is shutdown not the display. Thus, an user may in fact see if an image he/she thought was previously recorded has been truly recorded in the reduced power state before the battery level decreased below at which the camera could record the image (such as power state 1 and see col. 8). However, Anderson fails to

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disclose a single controller. Although, the controller is a cooperation of two main components of the system (the computer and the power circuit), forming a single integrated unit would have been obvious to anyone of routine skill in the art.

As for claim 2, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7, lines 23-32 and 40-46; col. 8, lines 14-17).

As for claim 3, Anderson fails to specifically disclose the predetermined value is half the value of the a full amount of electric charge stored in the battery. However, the Examiner asserts that Anderson discloses the claimed invention with the exception of this limitation and it appears the invention would work equally as well without specifying the threshold value is half of the battery maximum voltage level.

As for claim 4, see Examiners notes in claim 3 and 1 and see col. 5, lines 45-48 and col. 6, lines 1-5.

As for claim 5, see Examiners notes in claim and col. 7, lines 1-5.

As for claim 6, Anderson's signal processor (16) contains a memory and digital signal processor . However, it is notoriously well known in the art that a camera system could incorporate two processors (digital and analog) to processor image signals as they are output from the imager initially and then digitally processor them late for digital transmission or use in

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external digital equipment connected to the camera. Therefore, it would have been obvious to one of ordinary skill in the art to include incorporate two processors in a camera system to expand the external use of the image signal(digital broadcast, conferencing; recreational image manipulation (photo software) by computers etc).

As for claim 7, Anderson's system controls the camera such that when the detected voltage of the battery falls below the predetermined value (5.2 v), the camera shuts down power to some of the components in the system. For example: *In another mode when powering shutdown sequence has begun, the charging the flash is lessened (not the maximum charge amount) and camera image processing and other functions are allowed to be implemented, such as display.* Thus, Anderson's camera system is clearly teaching to powering down individual circuits which have a great deal of influence on battery drain, such flash, processing and display to increase the longevity of the battery/power supply. Additionally, it is clear that Anderson also teaches efficient use of the energy available in the camera when power level output from the battery is not at a maximum or well above the threshold/predetermined value (minimum safe operating voltage; see col. 6, lines 1-25; col. 7, lines 23-45; col. 8, lines 1-51 and col. 10, lines 29-55). Additionally, see Examiners notes in claim 1.

As for claim 8, See Examiners notes in claim 1. Additionally, Anderson discloses the minimum safe operating level is 5.2 and a shut down sequence doesn't occur until the power level falls below the minimum. Thus, charging the capacitor and display could be performed when the

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power in the battery is at least the predetermined value (col. 5, lines 43-48; col. 7, 23-32 and 40-46; col. 8, lines 14-17).

As for claim 9, see Examiners notes in claim 7 and 3.

As for claim 10, see Examiners notes in claim 9 and 7.

3. Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kare.

As for claim 11, see Examiners notes in claim 1. In addition, controller receives a signal indicating the voltage is below a predetermined value. As discussed above, Anderson disclose preventing complete charging of the capacitor and displaying an image simultaneously when the charge level is below a predetermined value. Kare supports completing the charging of the capacitor before imaging can occur. Thus, Anderson and Kare disclose preventing charging of the capacitor and displaying an image simultaneously when the charge level is below a predetermined value. They also teach charging the flash completely before starting the imaging cycle. Thus, it would have been further obvious to one of ordinary skill in the art, to control the monitor/display to be inoperative while a capacitor is charging after recording image data on a recording medium and reproducing recorded data, since Anderson teaches shutting off the flash to conserve energy when recording and displaying and Kare further illustrates charging and any imaging related function should occur sequentially (one at a time/ one after the other). Therefore, the system would prevent the power source from heavily loaded periods of use which cause the camera system to increase the longevity of the battery/power source usage.

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As for claim 12, see Examiner notes in claim 11 and 2.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Harrington whose telephone number is (703) 308-9295. The examiner can normally be reached on Monday to Thursday from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Wendy Garber, can be reached on (703) 305-4929.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-6306, (for formal communications intended for entry)

Or:

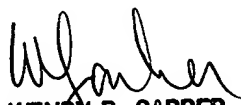
(703) 308-6296 (for informal or draft communication, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

AMH:



March 23, 2001



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